

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
20 October 2005 (20.10.2005)

PCT

(10) International Publication Number  
**WO 2005/098972 A1**

(51) International Patent Classification<sup>7</sup>: **H01L 33/00**

**KIM, Choong-Youl [KR/KR];** 302ho 967-1 Munhe-  
ung-dong, Buk-gu, Gwangju-si 500-110 (KR).

(21) International Application Number:  
PCT/KR2005/001008

(74) Agent: **HAW, Yong-Noke;** 8th fl., Songchon bldg., 642-15  
Yoksam-dong, Kangnam-gu, Seoul 135-080 (KR).

(22) International Filing Date: 7 April 2005 (07.04.2005)

(81) Designated States (*unless otherwise indicated, for every  
kind of national protection available*): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HN, HU, ID, IL, IN, IS, JP, KE,  
KG, KM, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ,  
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA,  
ZM, ZW.

(25) Filing Language: Korean

(26) Publication Language: English

(30) Priority Data:  
10-2004-0023695 7 April 2004 (07.04.2004) KR

(71) Applicants (*for all designated States except US*): **LG  
INNOTEK CO., LTD [KR/KR];** 14th Fl., Hansol Bldg.,  
736-1, Yoksam-dong, Kangnam-gu, Seoul 135-983 (KR).  
**KOREA RESEARCH INSTITUTE OF CHEMICAL  
TECHNOLOGY [KR/KR];** 100 Jang-dong, Yuseong-gu,  
Daejeon-si 305-600 (KR).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **KIM, Chang-Hae**  
[KR/KR]; 138-1402 Hanvit APT., Ueocun-dong,  
Yusung-gu, Daejeon-si 305-755 (KR). **PARK, Joung-Kyu**  
[KR/KR]; 7-305 Gongdong Gwanri APT., 431 Dory-  
ong-dong, Yusung-gu, Daejeon-si 305-340 (KR). **KIM,  
Sang-Kee [KR/KR];** 103-307 Chumdan Moa APT., 757-5  
Wolgye-dong, Gwangsan-gu, Gwangju-si 506-821 (KR).

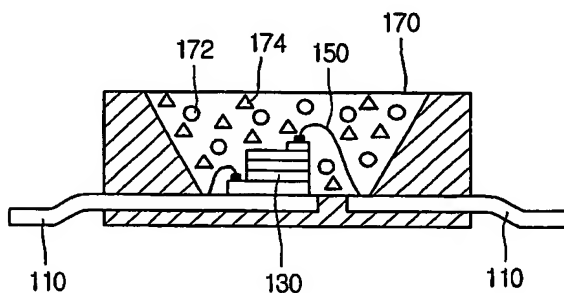
(84) Designated States (*unless otherwise indicated, for every  
kind of regional protection available*): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,  
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,  
GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— with international search report

*For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.*

(54) Title: **LIGHT EMITTING DEVICE AND PHOSPHOR FOR THE SAME**



(57) Abstract: Provided is a light emitting device including a light emitting chip, and a phosphor through which a light emitting from the light emitting chip at least partially passes such that the light is converted into lights having at least two different wavelengths and emitted. The light emitting device emits white light using the phosphor.

WO 2005/098972 A1